

REMARKS

This Application has been carefully reviewed in light of the Office Action dated August 8, 2003 (Paper No. 12). Claims 1 to 19 are in the application, of which Claims 1, 8, 18 and 19 are independent. Reconsideration and further examination are respectfully requested.

Applicant thanks the Examiner for his indication of allowable subject matter in Claims 10 to 12. Those claims have not been rewritten in independent form, as otherwise suggested by the Examiner, since it is believed that the claims from which they depend are also in condition for allowance, as detailed more fully below.

Claims 1 to 5 and 18 were rejected under 35 U.S.C. § 103(a) over U.S. Patent 5,220,441 (Gerstenberger); Claims 6 and 7 were rejected over Gerstenberger in view of U.S. Patent 5,867,591 (Onda); Claims 8, 13 to 17 and 19 were rejected over Gerstenberger in view of Onda and further in view of U.S. Patent 5,197,962 (Chen); and Claim 9 was rejected over Gerstenberger in view of Onda in view of Chen and further in view of U.S. Patent 4,745,562 (Prazdny). The rejections are respectfully traversed, for the reason that the applied art is not seen to disclose or to suggest the claimed second correspondence search, as detailed more fully below.

The invention concerns a search for matching points between a right image and a left image of an original scene in which the images share some overlap area. First and second correspondence searches are executed, wherein the first correspondence search finds a first matching point in the left image which corresponds to a first point within the

overlap area of the right image. Using the first matching point, the second correspondence search finds a second matching point in the right image, and a matching point comprising the first or second matching point is selected.

In making the invention, the inventor recognized special properties of the first and second images, and of the overlap area between them. Thus, according to the invention, the second correspondence search is not run on any points to the left of the first point in the right image. Moreover, a range of the second correspondence search is narrower than a range of the first correspondence search.

By virtue of the foregoing arrangement, the second correspondence search provides the invention with significant efficiencies not found in the art.

In entering the rejection of the claims, the Office Action took the position that “choice of direction is common”, which implies a symmetry between the first and second correspondence searches that is not reflected in the claims. In particular, according to one feature of the invention, the second correspondence search is not run on any points to the left of the first point in the right image, and the range of the second correspondence search is narrower than that of the first correspondence search.

The Office Action further asserted that “[k]nowing the left boundary of the right image in the overlap region, one is motivated to search to the right of the first point to find the boundary (i.e., edge) of the left image”. This assertion is made without any citation to the prior art. As such, it cannot fairly be said that one is “motivated” to make such a search, since there is absolutely no evidence in the prior art of motivation to do so.

In any event, the claims herein very clearly recite the asymmetric nature of the first and second correspondence searches, such that the second correspondence search is not run on any points to the left of the first point in the right image, and such that the range of the second correspondence search is narrower than that of the first correspondence search. Gerstenberger has no such teaching, nor does any of the secondary references applied against the claims.

It is therefore respectfully submitted that the claims herein define subject matter that would not have been obvious from any permissible combination of the applied art, and allowance of the claims is respectfully requested.

Applicant's undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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